1915

ANNUAL REPORT
OF THE DIRECTORS OF

ERICAN TELEPHONE AND TELEGRAPH COMPANY

TO THE STOCKHOLDERS
FOR THE YEAR ENDING
DECEMBER 31, 1915

NEW YORK, 1916

American Telephone & Telegraph Company

JANUARY 1, 1916

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REPORT OF THE DIRECTORS OF AMERICAN TELEPHONE AND TELEGRAPH COMPANY.

NEW YORK, March 13, 1916.

TO THE STOCKHOLDERS:

Herewith is respectfully submitted a general statement covering the business of the Bell System as a whole, followed by the report of the American Telephone and Telegraph Company, for the year 1915.

BELL TELEPHONE SYSTEM IN UNITED STATES.

SUBSCRIBER STATIONS.

At the end of the year the number of stations which constituted our system in the United States was 9,151,221, an increase of 502,228, including 109,336 connecting stations. 2,995,321 of these were operated by local, cooperative and rural independent companies or associations having sub-license or connection contracts, so-called connecting companies.

PLACES REACHED.

The Bell System by its toll lines connects with few exceptions every village or rural community in the United States, and its exchange lines are within the reach of substantially all the residents of rural districts.

The service has been so improved that a majority of all stations can have dependable conversation with each other regardless of distance; and to all connected with the system the telegraph systems of the country are available.

THE WIRE SYSTEM.

The total mileage of wire in use for exchange and toll service was 18,505,545 miles, of which 1,029,951 were added during the year. Of the total mileage over 16,050,000 miles were exchange wires, and over 2,450,000 toll wires. These figures do not include the mileage of wire operated by connecting companies. Of this total wire mileage 93 per cent. is copper wire. 10,536,837 miles are underground, including 607,872 miles of toll wires in underground cables. The underground conduits represent a cost of $94,500,000 and the cables in the conduits $111,200,000—a total in underground plant of $205,700,000.

There are 196,841 miles of phantom circuits in the Bell System, an increase during the year of 7,279 miles Particular attention is called to the mileage of "phantom circuits," reported this year for the first time.

The ordinary telephone connection consists of two wires technically called a telephone circuit, each wire constituting one "side" of the circuit.

A phantom circuit is a circuit superimposed on two ordinary circuits by so connecting the two wires or "sides" of each ordinary circuit that they can be used as one side of the phantom circuit. In this way three practica talking circuits can be obtained from four wires.

By using each side of the phantom circuit in the same way, an additional phantom circuit can be obtained and in this way seven circuits can be obtained from eigh wires. This "phantom on a phantom," sometimes called a "ghost," is not used commercially, as the gain does no justify the added complications.

TRAFFIC.

Including the traffic over the long-distance lines, bu not including connecting companies, the daily averag of toll connections was about 819,000, and of exchang connections about 25,184,000, as against corresponding figures in 1914 of 799,000 and 27,049,000; the total daily average for 1915 reaching 26,003,000, or at the rate of about 8,652,400,000 per year.

While there was an apparent decrease in exchange traffic as compared with the previous year, on the same basis as last year there was the normal increase. All the decrease shown by the figures this year was due to a rigid exclusion of *all* uncompleted connections. As now established in our reports, exchange connections consist only of the local calls on which the subscriber received the desired connection. Calls are excluded which are "busy," "don't answer" or "abandoned;" which are to disconnected lines or lines in trouble; which are from a subscriber reporting that his bell rang, and which are to toll points or are incidental to calls to toll points.

PLANT ADDITIONS.

The net amount added to plant and real estate by all the companies, excluding connecting companies, constituting our system in the United States during the year 1915 was $32,863,717, distributed as follows:—

Real Estate	$4,825,851	
Equipment	12,874,765	
Exchange Lines	17,557,569	
Toll Lines	3,010,764	
		$38,268,949
Less Decrease in Construction Work in Progress, etc.		5,405,232
Net Additions		$32,863,717

PLANT ADDITIONS OF PREVIOUS YEARS.

The net amounts added in sixteen years have been as follows:—

1900	$31,619,100	1908	$26,637,200
1901	31,005,400	1909	28,700,100
1902	37,336,500	1910	53,582,800
1903	35,368,700	1911	55,660,700
1904	33,436,700	1912	75,626,900
1905	50,780,900	1913	54,871,900
1906	79,366,900	1914	50.045,300
1907	52,921,400	1915	32,863,700

making a total for the sixteen years of $729,824,200.

MAINTENANCE, DEPRECIATION AND RECONSTRUCTION.

During the year $76,060,000 was applied out of revenue to current maintenance and depreciation, an increase of $2,968,000 as compared with 1914. Current maintenance decreased $424,000, practically all of which was saved in the item of subscriber station removals. The number of stations disconnected was 30,000 less than in 1914.

The provision for depreciation of plant during the year was $44,888,700, an average of 5.2 per cent. of the cost of plant, and an increase over 1914 of $3,392,500.

Of this $44,888,700, approximately $19,000,000 was unused during the year for replacement of wornout plant, and the reserves for future replacement have increased accordingly.

It is the continuing policy of the Bell System to provide out of earnings each year such amounts as represent the estimated wear and tear, obsolescence and inadequacy of plant accruing during that year, so that when any plant comes to be retired sufficient reserve has been gradually acquired to meet the loss of capital due to such retirement. Not only is this a sound and conservative policy for the protection of the investor in Bell securities, but it is the only way by which present telephone users pay for the wear of the plant they are using instead of passing it on to the next generation. Lack of recognition of this principle has caused many a failure in other industries as well as the telephone business, but the principle is now generally accepted and the practice is firmly established by the accounting rules of the Interstate Commerce Commission and the various state commissions.

GROWTH AND PROSPECTS.

In the latter part of the year the improvement in general business conditions throughout the country was reflected in the Bell Telephone System by a substantial crease in the number of subscriber stations and by an nprovement in toll earnings.

In some sections the long-distance toll business showed abnormal increase and for a time taxed our facilities the utmost limits.

The gross telephone earnings for the entire year 1915 creased 6.4 per cent. over 1914, which is no more than the esent normal growth from year to year. Comparing e two years by half year periods, the first half of 1915 creased less than 5 per cent. over the first half of 1914, hile the second half of 1915 increased nearly 8 per cent. er the same period of 1914.

The increase in subscriber stations by half years is en more notable:

	1914.	1915.
First half year	206,100	158,700
Second half year	125,900	225,300
Total	332,000	384,000

In the first half of 1915 the current additions to plant re $15,170,000 and in the last half they were $17,694,-0, a total of $32,864,000 for the year as compared with estimate of $35,000,000 mentioned in last year's ort. No new financing was necessary for these ex-nditures.

The Bell Telephone System was able to respond quickly efficiently to the demands made on it because of the icy consistently followed for years of providing plant *advance* of the requirements. We do not know to what ent the present revival of industry will go or how g it will last. But we do know that a responsibility ts on us to be ready for further expansion when it nes. During 1916 we are carrying on the work of new struction on about the same scale as experience had wn was advisable before the outbreak of the European

It is estimated that the current additions to plar during the year will aggregate about $57,000,000 an construction work is now proceeding on that basis. Tł financing for this and to meet all indebtedness maturir during the year was completed and announced in Januaı and is stated elsewhere in this report.

OPERATING RESULTS.

The following tables show the business for the ye of the Bell Telephone System including the Americ Telephone and Telegraph Company and its associat holding and operating companies in the United Stat but not including connecting independent or sub-licens companies, or the Western Electric Company except investments in and dividends from those companies a included respectively in assets and revenue. All int company duplications are eliminated in making up th tables so that the figures represent the business of t system as a whole in its relations to the public.

The gross revenue in 1915 of the Bell System—r including the connected independent companies—w $239,900,000; an increase of over $13,900,000 over l year. Of this, operation consumed $84,500,000; tax $13,100,000 or 1.64 per cent. on the outstandi capital obligations; current maintenance, $31,200,0 and provision for depreciation, $44,900,000.

The surplus available for charges, etc., was $66,200,0 of which $18,100,000 was paid in interest and $32,900, was paid in dividends.

The total capitalization, including inter-company it and duplications but excluding reacquired securities the companies of the Bell System, is $1,367,537,8 Of this, $571,185,256 is owned and in the treasury of companies of the Bell System.

The capital stock, bonds and notes payable *outstand in the hands of the public at the close of the year were* $7 352,584

BELL TELEPHONE SYSTEM IN UNITED STATES.

COMPARISON OF REVENUE AND EXPENSES, 1914 AND 1915.

(ALL DUPLICATIONS, INCLUDING INTEREST, DIVIDENDS AND OTHER PAYMENTS TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY BY ASSOCIATED HOLDING AND OPERATING COMPANIES, EXCLUDED.)

	1914.	1915.	Increase.
Gross Revenue	$225,952,123	$239,909,649	$13,957,526
Expenses—Operation	$ 81,396,219	$ 84,550,665	$ 3,154,446
Current Maintenance	31,595,388	31,171,272	424,116*
Depreciation	41,496,240	44,888,702	3,392,462
Taxes	12,216,997	13,117,253	900,256
Total Expenses	$166,704,844	$173,727,892	$ 7,023,048
Net Revenue	$ 59,247,279	$ 66,181,757	$ 6,934,478
Deduct Interest	18,940,641	18,095,643	844,998*
Balance Net Income	$ 40,306,638	$ 48,086,114	$ 7,779,476
Deduct Dividends Paid	30,304,186	32,897,065	2,592,879
Balance for Surplus	$ 10,002,452	$ 15,189,049	$ 5,186,597

COMBINED BALANCE SHEETS, 1914 AND 1915.

(DUPLICATIONS EXCLUDED.)

ASSETS:	Dec. 31, 1914.	Dec. 31, 1915.	Increase.
Telephone Plant	$ 847,204,803	$ 880,068,520	$32,863,717
Supplies, Tools, etc.	15,701,601	15,951,582	249,981
Receivables	37,275,586	43,518,625	6,243,039
Cash	49,791,276	45,716,330	4,074,946*
Stocks and Bonds	69,800,814	72,652,646	2,851,832
Total	$1,019,774,080	$1,057,907,703	$38,133,623
LIABILITIES:			
Capital Stock	$ 393,731,750	$ 440,711,200	$46,979,450
Funded Debts	385,352,367	353,236,464	32,115,903*
Bills Payable	15,630,790	2,404,920	13,225,870*
Accounts Payable	26,214,274	29,039,127	2,824,853
Total Outstanding Obligations	$ 820,929,181	$ 825,391,711	$ 4,462,530
Employees' Benefit Fund	8,889,750	9,114,329	224,579
Surplus and Reserves	189,955,149	223,401,663	33,446,514
Total	$1,019,774,080	$1,057,907,703	$38,133,623

*Decrease.

If to this be added the current accounts payable, $29,039,127, the total outstanding obligations of every kind were $825,391,711, as against which there were liquid assets, cash and current accounts receivable, of $89,234,955, leaving $736,156,756 *as the net permanent capital obligations* of the whole system outstanding in the hands of the public.

As stated in previous reports, we believe from appraisals made by our engineers that the cost of reproduction of the physical plants of the Bell System would exceed their book cost by some $61,000,000, aside from all intangible values.

These telephone plants stand on the books of the companies at $880,068,520 as of December 31, 1915, an increase during the year of $32,863,717. Stocks and bonds owned increased $2,851,832. Supplies, tools and receivables increased $6,493,020, and cash balances were decreased $4,074,946. This makes a total increase in assets of $38,133,623, which is represented by $4,462,530 increase in outstanding obligations of the whole system and an increase in surplus and reserves of $33,671,093.

In accordance with our previous practice in making up the combined figures for the Bell System, all intercompany items have been eliminated, and all intangible assets have been excluded, so that the combined surplus and reserves as shown on the preceding page are considerably less than the sum of surplus and reserves shown on the books of the separate companies.

All of the present surplus and reserves, aggregating $223,400,000, is invested in tangible and productive property the revenue from which enables the companies to maintain their efficiency without paying capital charges on this amount.

Your attention is called to a comparative statemen of the Bell System for the years 1907 and 1915. During that period the gross earnings have increased $111,300,000

Bell Telephone System in United States.

COMPARISON OF REVENUE AND EXPENSES, 1907 AND 1915. (ALL DUPLICATIONS, INCLUDING INTEREST, DIVIDENDS AND OTHER PAYMENTS TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY BY ASSOCIATED HOLDING AND OPERATING COMPANIES, EXCLUDED.)

	1907.	1915.	Increase.
Gross Revenue..........	$128,579,800	$239,909,649	$111,329,849
Expenses:			
Operation.............	45,894,900	84,550,665	38,655,765
Current Maintenance...	36,626,700	31,171,272	39,433,274
Depreciation..........		44,888,702	
Taxes................	4,873,400	13,117,253	8,243,853
Total Expenses.......	$ 87,395,000	$173,727,892	$ 86,332,892
Net Revenue............	$ 41,184,800	$ 66,181,757	$ 24,996,957
Deduct Interest.........	10,508,500	18,095,643	7,587,143
Balance Net Income......	$ 30,676,300	$ 48,086,114	$ 17,409,814
Deduct Dividends Paid....	18,151,700	32,897,065	14,745,365
Balance for Surplus.......	$ 12,524,600	$ 15,189,049	$ 2,664,449

COMBINED BALANCE SHEETS, 1907 AND 1915. (DUPLICATIONS EXCLUDED.)

ASSETS:	Dec. 31, 1907.	Dec. 31, 1915.	Increase.
Contracts and Licenses ..	$ 9,078,000	....	$ 9,078,000*
Telephone Plant.......	502,987,900	$880,068,520	377,080,620
Supplies, Tools, etc.....	17,165,200	15,951,582	1,213,618*
Receivables..........	29,584,500	43,518,625	13,934,125
Cash.................	24,869,600	45,716,330	20,846,730
Stocks and Bonds......	29,448,300	72,652,646	43,204,346
Total..............	$613,133,500	$1,057,907,703	$444,774,203
LIABILITIES:			
Capital Stock..........	$291,095,400	$440,711,200	$149,615,800
Funded Debts.........	196,113,700	353,236,464	157,122,764
Bills Payable.........	45,175,700	2,404,920	42,770,780*
Accounts Payable......	19,436,600	29,039,127	9,602,527
Total Outstanding Obligations...........	$551,821,400	$825,391,711	$273,570,311
Employees' Benefit Fund	....	9,114,329	9,114,329
Surplus and Reserves...	61,312,100	223,401,663	162,089,563
Total..............	$613,133,500	$1,057,907,703	$444,774,203

* Decrease.

of which $86,300,000 has been absorbed by increase in expenses, leaving an increase of $25,000,000 in net earnings. The increase in interest was $7,600,000 and in dividends $14,700,000. The surplus for 1915 was over $15,000,000.

During this eight-year period the assets of the companies have increased nearly $445,000,000, while the capital obligations and payables outstanding have increased $273,600,000. The surplus and reserves have increased from $61,300,000 to $223,400,000, over $162,000,000 after setting aside $9,114,329 for the Employees' Benefit Fund.

AVERAGE OPERATING UNITS OF ASSOCIATED OPERATING COMPANIES.

(See table on page 13.)

The table on page 13 shows average operating revenue and expenses per station, operating ratios, unit plant cost, etc., of the associated operating companies (not including the American Telephone and Telegraph Company's long-distance lines), for the years 1895, 1900, 1910, 1914 and 1915.

Although there are objections to the use of the subscriber's station as a unit or standard, especially in comparisons of one part of the country with another, yet it is the best unit available and for general comparisons of the whole system from one year to another it gives some idea of the trend of the business.

It will be observed that both earnings and expenses per station now vary slightly from year to year but are very much less than in earlier years. The expenses per station have in spite of improved wages and increased taxes been kept down by improved methods and greater efficiency all along the line.

The decrease—from $69.75 in 1895 to $29.80 in 1915—in the average rate or earnings per station made possible

AVERAGE OPERATING UNITS OF ASSOCIATED OPERATING COMPANIES, 1895 to 1915.

(THIS TABLE COVERS THE COMPANIES OWNING ALL THE EXCHANGES AND TOLL LINES OF THE BELL TELEPHONE SYSTEM EXCEPT THE LONG-DISTANCE LINES OF AMERICAN TELEPHONE AND TELEGRAPH CO.)

Average per Exchange Station.

EARNINGS:	1895.	1900.	1910.	1914.	1915.
Exchange Service	$ 69.75	$ 44.68	$ 31.28	$ 29.81	$ 29.80
Toll Service	11.35	12.60	9.47	8.60	8.65
Total	$ 81.10	$ 57.28	$ 40.75	$ 38.41	$ 38.45
EXPENSES:					
Operation	$ 29.15	$ 21.63	$ 15.14	$ 15.88	$ 15.61
Taxes	2.23	2.37	2.00	2.00	2.02
Total	$ 31.38	$ 24.00	$ 17.14	$ 17.88	$ 17.63
Balance	$ 49.72	$ 33.28	$ 23.61	$ 20.53	$ 20.82
Maintenance and Depreciation	$ 26.20	$ 17.68	$ 13.46	$ 12.62	$ 12.38
Net Earnings	$ 23.52	$ 15.60	$ 10.15	$ 7.91	$ 8.44
Per Cent. Operation Expense to Telephone Earnings	35.9	37.8	37.2	41.4	40.6
Per Cent. Telephone Expense to Telephone Earnings	71.0	72.8	75.1	79.4	78.1
Per Cent. Maintenance and Depreciation to Average Plant, Supplies, etc.	9.1	8.4	9.5	8.9	8.8
Per Cent. Increase Exchange Stations*	15.7	26.5	11.8	6.4	6.9
Per Cent. Increase Miles Exchange Wire*	15.9	33.2	12.0	9.2	6.8
Per Cent. Increase Miles Toll Wire* (excluding Long-Distance Lines)	21.3	25.2	11.5	5.5	.9†
Average Plant Cost Per Exchange Station (Exchange and Toll Construction, excluding Long-Distance Lines)	$260	$199	$142	$141	$138
Average Cost Per Mile of Toll Wire (including Poles and Conduits, excluding Long-Distance Lines)	$ 81	$ 71	$ 66	$ 69	$ 70
Per Cent. Gross Telephone Earnings to Average Plant	29.7	28.4	28.8	27.6	27.7
Per Cent. Total Net Earnings to Average Capital Obligations	9.76	8.85	7.52	6.66	7.20
Per Cent. Total Net Earnings to Plant and Other Assets	9.36	7.96	6.65	5.51	5.84
Per Cent. Paid Out on Average Capital Obligations	5.13	6.10	6.01	5.88	5.88
Per Cent. Paid Out on Plant and Other Assets	5.09	5.57	5.31	4.87	4.76

* Increase during year shown, over previous year.

† Small increase mainly due to increase in radius covered by exchange rates.

by the improvements in apparatus and methods, is largely the result of "measured service," which places the use of the system within the reach of the many who can afford to pay, and would be warranted in paying, for actual use or value of the service to them, but can not afford to contribute toward the service of others and would not be warranted in so doing.

Flat rates, that is, a uniform rate for each class of service regardless of use, are based on the average cost or the average use of all. In places where the use varies greatly with widely separated extremes, flat rates are objectionable in that the large user, to whom the service is a business necessity and directly a profit, gets the service at less than cost, while the small user, to whom the service is at most a convenience and very often a luxury, pays the deficit.

In such places the average use is also largely augmented by the large use of the service by a relatively small number; consequently any uniform rate presents both objectionable and inequitable discrimination as between the large users and small users. In rural or community service, or in residential service generally, where there is small variation in use, and the service conditions are less onerous, exacting, or costly, whatever variations there are in service can be covered by single or party line service.

Through these adjustments in rates the use of the system has been placed within the reach of all who have any use for the service. A very large majority of all the users of the telephone get their service at a price much less than the average revenue as shown above, which makes it the cheapest telephone service in the world.

Particular attention is called to the per cent. of net earnings and of dividend and interest disbursements to total plant and other assets:

Net earnings to plant and other assets	5.84%
Dividends and interest to plant and other assets	4.76%

In this statement the book valuation is used, which is considerably less than replacement value and far below any appraisement which the Company would be obliged to accept, either as a basis for fixing rates or for any other purpose, and is well within all official valuations so far as such have been made.

The low percentage of earnings on the value of the plant, and of average distribution to capital represented by securities issued against this plant, should convince the most skeptical that under no possible different conditions could the public get cheaper service. Whether they could get better service must be left to the decision of those who have had the opportunity of comparing the service of the Bell System with that of other systems either of this country or of the world.

WESTERN ELECTRIC.

The relations between the Western Electric Company and this and the associated companies have been very fully discussed and set forth in previous reports, particularly that for the year 1914. The functions which it performs for the Bell System continue unchanged.

The manufacturing and business of the Western Electric were operated under an Illinois corporation. Its nominal headquarters and principal factory were in or near Chicago. The actual official headquarters and principal laboratory, warehouse and experimental departments were in New York City.

To straighten out the anomalous position of the company, and to bring its operations within the actual conditions, the property was transferred, with the consent of every shareholder, to the Western Electric Company, Incorporated, organized under the laws of New York.

The principal factory will remain in Illinois, and the legal as well as the actual headquarters will be in New York.

The company's business for 1915 has been on the whole better than was expected. The sales amounted to $63,852,000, of which $38,394,000 represents sales to the companies of the Bell System, and $25,458,000 represents sales to other customers.

No prediction can be made with any degree of confidence at the present time as to the effect of the war upon the company's foreign investments.

EMPLOYEES' BENEFIT FUNDS.

The Plan for Employees' Pensions, Disability Benefits and Death Benefits announced in the report for 1912 has been in complete and successful operation throughout the Bell System for three years. Under this Plan the companies bear all the cost of pensions on account of old age, of benefit payments in sickness, of compensation in cases of accident, and of benefits to dependents in cases of death. Every employee can calculate for himself beforehand exactly what he is entitled to under any of these contingencies.

Compensation in cases of industrial accidents is now covered, more or less completely, by the laws of most states. The statutes of the various states naturally differ as to the rates and periods of such compensation and in other details. Our Plan is uniform for all parts of the country and is usually somewhat more liberal than the statutory provisions, so that while in no case does the injured employee receive less than fixed by law, in many cases he receives slightly more.

The other benefits under our Plan are not required by law, but we believe it is no more than simple justice that the men and women who devote their working lives to the telephone service should be assured of some income when they are sick or come to old age, and that some immediate provision should be made for those dependent on such workers when they die in the service. If justice demands this, its cost is a fair charge against the business, and we so regard it.

Besides the matter of justice a suitable provision for these exigencies of life which the wage-earner is frequently unable to meet single-handed relieves him of anxiety and dread and enables him when sick to secure the care and treatment which he needs. The payment of the benefits thus brings a very real return through the employee's increased efficiency and interest in the service. Evidences of this and of its beneficial effect on the telephone service appear continually. The telephone-using public is benefited as well as the telephone employees.

In the three years 1913-1915, inclusive, the expenditures from the Benefit Funds of the Bell companies have aggregated $3,779,896. At December 31, 1915, the reserves for these Benefit Funds aggregated $9,114,329. Some figures for the year 1915 will be of interest:

Pensions. At the end of the year 257 former employees were on the pension roll, 54 having been added and 10 discontinued during the year. The average pension paid was $44 per month.

Sickness. 15,325 cases of sickness for which benefits were paid under the Plan occurred during the year. The average period of disability for completed cases was 38 days and the aggregate benefits paid were $723,759.

Accident. There were 7,705 accident cases during the year, of which comparatively few were serious. In one-third of the cases the employee went back to work within a day. In over two-thirds of the cases the period of disability was not over a week. Of the total number of accidental njury cases 36 resulted fatally. These fatal cases were as heretofore chiefly from contact with the high tension urrents of power and lighting companies. They were ess in number than in previous years, partly perhaps beause of less construction work in 1915, but more especially we think, because of the progress made in eliminating unsafe conditions of plant and the greater care urged on all plant employees with respect to the prevention of accidents.

The total payments from the Benefit Funds on account of accidental injuries were $429,283 during the year, including $108,699 for medical attendance, hospital care and other expenses incurred in aid of those injured.

Death Benefits. The number of employees of five years or more service who died during the year (not including the accident cases mentioned above) was 166. Of these 138 left dependents to whom were paid $111,384. Burial expenses for those leaving no dependents were $4,248, a total of $115,632.

Summary. The total amount of all benefits paid from these funds during the year was $1,397,742. This does not include the expenses of administration of the funds no the general medical supervision and assistance given by some of the companies.

Financial assistance is also given in many cases of illnes which do not come wholly within the limitations impose on the Employees' Benefit Funds. These are chiefly th cases of employees who have been in the service less tha two years, or whose illness continues for long periods, o who in other ways are not cared for by the regular system Plans for systematizing and extending the assistance give in such cases and for giving such medical assistance as wi tend to decrease or prevent illness are under consideratio at this time.

REPORT OF THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY.

EARNINGS.

The net earnings of the American Telephone and Telegraph Company for the year were $41,117,487.28, which is $559,509.99 more than in the previous year. The interest charges were $6,498,849.72 and the dividends at the regular rate of 8 per cent. per annum were $29,100,591.03. Of the resulting balance there was carried to Reserves $2,500,000 and to Surplus $3,018,046.53.

BALANCE SHEET.

The balance sheet of the American Telephone and Telegraph Company is given as usual at the end of this report. It will be noticed by comparison with the previous year's balance sheet that the indebtedness of the Company was reduced during the year by $50,963,560. Of this decrease $39,312,300 was due to the conversion of bonds into stock, as explained below, and the balance $11,651,260 was a reduction in the Company's payables of all kinds.

For the $39,312,300 convertible bonds surrendered and for cash payments in connection therewith, stock having a par value of $35,795,200 was issued, a reduction in capital obligations of $3,517,100. The Company's direct obligations of every description were thus reduced by a total of $15,168,360.

On the other side, under assets, there is an increase in investments in associated companies of $10,604,042, and in telephones and long-distance telephone plant of $953,074, while cash on hand decreased $6,396,202 and miscellaneous receivables decreased $19,609,882.

The new item "Trustees—Employees' Stock Purchase Plan" $8,795,967, represents the balance not yet due from employees who are purchasing stock and paying for it by instalments of $2 per share per month under the plan announced in last year's report. This balance is being reduced by about $250,000 per month.

The net decrease in assets was thus $5,653,000 as compared with the decrease in obligations of $15,168,360, showing a net improvement in the Company's financial position of $9,515,360, which is represented by the increase in surplus and reserves.

CAPITAL STOCK AND BONDS.

The 4½% convertible bonds issued March 1, 1913, are under their terms convertible into stock beginning March 2, 1915, at the ratio of $120 in bonds (or $100 in bonds and $20 in cash) for one share of stock. Of the $67,000,000 issued $38,936,300 have been converted, leaving outstanding $28,063,700.

Of the 4% convertible bonds $376,000 have been converted during the year, leaving outstanding $4,129,000.

Of the $10,000,000 Western Telephone and Telegraph Company bonds assumed by this Company $10,000 have been reacquired during the year.

The only capital stock issued during the year was $35,795,200 par value, issued in exchange for convertible bonds.

The total outstanding capital stock and bonds of the American Telephone and Telegraph Company at December 31, 1915, were as follows:

Capital Stock	$380,477,100
4% Collateral Trust Bonds, 1929	78,000,000
4% Convertible Bonds, 1936	4,129,000
4½% Convertible Bonds, 1933	28,063,700
5% Western Telephone and Telegraph Company Bonds, 1932	9,990,000
Total	$500,659,800

For the $380,477,100 capital stock, $412,190,802 has been paid into the treasury of the Company; the $31,713,-

702 in excess of par value representing premiums on stock which are carried as part of the Company's surplus. The amount added to surplus during 1915 on this account due to the conversion of bonds having a par value greater than the stock issued in exchange therefor was $7,176,244.

All discounts on the bond issues have been charged off.

The number of shareholders, not including "employee" shareholders, 65,512, on December 31, 1915, shows an increase of 6,097 during the year. That the distribution is general appears from the following:

57,580 held less than 100 shares each;
7,536 held from 100 to 1,000 shares each;
368 held from 1,000 to 5,000 shares each;
13 held 5,000 shares or more each (omitting brokers and holders in investment trusts, etc.).

Of the holders of less than 100 shares each,

13,890 held 5 shares or less each;
43,362 held 25 shares or less each.

The average number of shares held was 58, or deducting the stock held by Trustees under the Employees' Stock Purchase Plan the average was 56 shares. A majority of the Company's shareholders are women. About 6 per cent. of the stock was at December 31st in the names of brokers, and less than 3 per cent. of the stock is held in Europe.

To the 65,512 stockholders of record shown above there should be added some 32,000 employees of the Bell System in all parts of the country who are paying for stock out of their wages at the rate of $2 per share per month. Counting these and also those persons whose stock is held for them in investment trusts and the like, there are certainly more than 100,000 actual owners of stock in this Company.

In response to many requests, the plan to aid employees to purchase stock on easy terms of payment has been extended as of March 1, 1916, to those not buying stock under the original plan.

FINANCING FOR 1916.

As nearly as can be determined from the experience of several years past the normal or average amount of new money required for the development of the Bell System is about $25,000,000 per annum.

For the year 1916 provision has been made to meet these normal or average requirements of about $25,000,000, and also to pay off the 5% coupon notes of associated companies which mature in April and May of this year by the sale in January of $50,000,000 4½% coupon notes maturing February 1, 1918. Part of these notes are issued by associated companies and endorsed by American Telephone and Telegraph Company and the balance are direct obligations of this Company.

ENGINEERING.

The work of the Engineering Department for the year 1915 has been of unusual importance. The transcontinental telephone project, which had been in process of development for so many years, was brought to a successful conclusion when, in the early part of the year, the transcontinental telephone line joining the principal centers on the Atlantic seaboard to the Pacific coast was thrown open to public use.

The service rendered over this line was so satisfactory to the public that engineering studies were at once begun for the extension of the improved form of construction. This work, which will require much time for its completion and which depends upon traffic and many other practical considerations aside from the purely engineering questions involved, has now progressed so far that it is possible to talk from any state in the Union to at least some point in any other.

By means of radio or wireless telephony the Engineering Department has during the year greatly extended the area upon the earth's surface over which the tones of the human voice may be transmitted. As a result of the advances in the art made by the Department, speech has been transmitted by wire from New York to Arlington, Virginia, and thence by wireless to the radio station at Mare Island, California. By these new wireless improvements speech has also been transmitted by radio telephony from Arlington, Virginia, to the Eiffel Tower in Paris, and simultaneously to the Hawaiian Islands in the Pacific.

In these demonstrations while the words spoken were sometimes heard with remarkable distinctness, atmospheric electrical disturbances and interferences from wireless telegraph stations made the successful transmission of speech impossible for long periods of time.

From these experiments and the work leading up to them, information of great value has been obtained. The true place of the wireless telephone when further perfected has been ascertained to be for uses supplementary to and in co-operation with the wire system, and not antagonistic to it or displacing it.

By co-operation with the electric light and electric power transmission and electric railway companies in all parts of the United States, important results have been obtained in reducing the hazard from high tension lines and in reducing the inductive interferences produced in telephone circuits by such lines. This work has been so important that without it there would be in this country today many districts deprived of telephone service.

Special studies have been made of electrolysis, telephone line crossings for railroads, fire underwriters' rules, the relation of telephone and electric light wires under ground, the joint use of poles for such wires overhead, protective devices and safety rules in connection with the proposed National Electric Safety Code. In these matters the Department has co-operated with the fire underwriting authorities, the Bureau of Standards and the national electrical societies.

On account of the countless variety of materials and the immense number of new parts which are added to the plant of the Bell System each year, there has been, on account of the European war, much difficulty in obtaining many of the supplies needed in our manufactures. In every case the derangement of our supplies has been but temporary because of the activities of the Engineering Department in devising substitutes and adopting new methods.

A serious shortage was threatened in the supply of materials needed in the manufacture of the paper used to insulate the wires in our telephone cables. Cables valued at from $10,000,000 to $12,000,000 are added to our plant each year. The wires of these cables are insulated with strips of paper manufactured from special material. Great lengths of these strips of paper are employed, the amount used in one year being sometimes as much as 2,000,000 miles in length. These cables contain, some of them, as high as 1,200 pairs of wires. It is of the utmost importance to have this paper of the necessary qualities, for upon it depends the life of our cable plant of such great value. In the paper which we have heretofore employed, all of these qualities were assured by long-continued investigations and abundant practical experience. The sudden adoption of a substitute material might be fraught with great danger of serious failures in the cable plant. A solution of this difficulty was found by the Department, whereby the situation caused by the shortage has been met without in any way impairing the efficiency of the cable plant or increasing its cost.

In the matter of dyestuffs used in insulating materials, chemicals for batteries, and contact materials, similar shortages were encountered and satisfactorily overcome.

In the manufacture of loading coils which are used in our long toll wires overhead and underground, great quantities of fine hair-like insulated iron wire of special composition and .004 inch in diameter are employed. Some years as much as 900,000 miles of this wire are used. On account of the congestion of business, and other reasons growing out of the conditions abroad, our supply of this wire has been threatened. This difficulty has been met by the successful development of certain new methods of construction upon which the Engineering Department has been engaged for a number of years.

Important work has been done during the year in making and revising fundamental plans for the local or city plants of the associated companies. Such plans have been made or revised for twelve important cities. Among these are Philadelphia, Minneapolis, Detroit and St. Paul. These plans form the basis for the most effective and economical arrangement of switchboards, offices, subways and cables for the cities for which they were made. The cost of the construction contemplated in accordance with these plans amounts to many millions of dollars. In addition to completing these plans, substantial progress has been made on plans for twenty-eight other important cities, among which are Boston, Kansas City, New Orleans, Baltimore and Pittsburgh.

With the growth of the toll line plant in the various parts of the Bell System, and with the rapid increase in intercommunication between the very remote parts of the country which has been brought about by the improvements in long-distance telephony in the past year, the importance of the best operating plans and the best arrangement of toll line plant from the traffic standpoint has been emphasized.

For many years the Department has been engaged in the development of methods of making fundamental plans for its toll lines. These plans show the complete layout of a toll plant for a period of years in advance of the immediate requirements. They show the offices which should be toll operating centers and those which should be tributary to such centers. They show the toll line routes and whether they are to be conduit, aerial cable or open wire. They show the number of toll circuits that will probably be required and their arrangement and the approximate gauge. They indicate the most effective general toll operating method to handle the different classes of business.

Constant work has been done and substantial results accomplished by the Department in improving the standards of construction and operating methods. In cables, switchboards and apparatus substantial advances have been made and the results placed at the disposal of the associated companies.

During the year the Department has done important and confidential work with representatives of both the Army and the Navy in the matter of new methods of wireless and wire communications, with special reference to naval and military uses. In addition to this, and for the benefit of the Army and Navy authorities, studies and investigations have been made into the wire communications and connections of our plant throughout the United States. This work, which is still going on, has made it clear that the comprehensive wire network of the Bell plant, by a simple plan of co-operation, will supply to the scheme of National Defense a working system of communications unequaled by that of any other nation.

LEGAL.

The work of the Legal Department naturally divides itself into two classes. There is first the service which is incidental to the operation of the Long Distance Lines Department of the Company. The routine features of this service include matters pertaining to rights of way and franchises, the adjustment of claims, and the negotiations of contracts, especially those intended to minimize interference due to high tension currents of other companies.

The second and broader and much more important class of service rendered by the Legal Department is in connection with the general functions of this Company and the work of the associated companies. It is not practicable to give a concise definition of the nature and extent of this general service. It is the purpose of the Legal Department to act as counsel for each of the associated companies, and beyond this, to do whatever may be necessary in order to supplement and facilitate the work of their legal departments. To better qualify it to act as advisor to the associated companies, the Legal Department endeavors at all times to keep closely in touch with all questions of a legal, or quasi legal, or economic nature which may in any way become pertinent to the business of the Bell System or to any one of its associated companies.

To make available for the use of the associated companies such information as is of general interest, the Legal Department issues various publications. These include bulletins published periodically calling attention to current decisions of the courts throughout the United States, which are intended to include references to all decisions in the United States which may be of special value to the legal departments of the associated companies, and also the publication, first in pamphlet and later in book form, of the telephone and telegraph cases, and other cases of general interest, decided by the public utility commissions in this country and in Canada. The statutory laws relating to telephone and telegraph companies are also compiled and published. In addition to these regular publications, there are printed from time to time and distributed special memoranda upon or discussions of questions which are thought to be of particular interest.

In addition to this general service, special service is rendered to the associated companies whenever it is believed by the associated companies or by this Company that such service will be of value to the associated company. It is the effort of the Legal Department in a general way to supervise and direct the legal affairs of the entire system, not through an attempt to transact the legal affairs of the associated companies, but by keeping closely in touch with the transaction of these affairs by them. It is the purpose to render the experience of the entire system available for the benefit of each part of it, to the end that the best possible results may be obtained and that all questions of a general nature involving matters of policy in which the system as a whole is interested, may be disposed of along consistent and sound lines.

Commission regulation continues to present many of the most important questions with which the Legal Department has to deal. In addition to the Interstate Commerce Commission, there are now commissions in all but four of the states, which have jurisdiction, more or less complete, over telephone companies, including rates, service, accounting, financing and capitalization. Commission regulation has not progressed beyond the development stage. The Company has consistently maintained what has heretofore been its policy in endeavoring to co-operate with the various commissions in establishing their regulation upon the sound basis which is necessary if it is to be justified either in the view of the public or of the public utilities. In endeavoring to accomplish this purpose, the Legal Department is constantly working, first, to accurately define and clearly establish the fundamental propositions, both legal and economic, which must be the basis of proper rate regulation, and secondly, to see that these propositions are well and clearly presented to the various commissions.

The amount of pending litigation is entirely unimportant. It is true now, as it was when the last report was made to the stockholders, that no suit is pending against this Company or any of its associated companies charging any violation of any state or federal anti-trust law. No such suit has been brought since the making of the last report.

The suit of William A. Read and Company, referred to in the last two preceding reports, has not yet been finally disposed of. It is now being tried in the circuit court of Cook County, Ill., and it is hoped that a decision in the case will be reached by that court prior to its adjournment for the summer.

The arrangement with the attorney general of the United States, which is set out in detail in the correspondence printed in the report for the year ending December 31, 1913, is still in effect. A careful adherence to it, coupled with entire frankness as to all of the matters in which the Company has been concerned, has resulted in a continued avoidance of misunderstandings and disagreements with the federal authorities.

Since the last report was issued, Mr. George V. Leverett has compelled the Company to yield to his persistent request that he be relieved of his active duties in the Legal Department. His advice and counsel will continue to be available to the Company. Mr. Leverett was the Company's general counsel while the vitally important patent litigation which determined the validity of the Bell patents was in progress, and also during the transactions which culminated in the acquisition by the present Company of the assets of The American Bell Telephone Company, in which he had a most important part. His wise counsel and painstaking attention to its affairs have been essential elements in the Company's success, and his unfailing kindness and courtesy, and consideration for others, with his lovable personality, have endeared him to all of his associates.

GENERAL.

The formal opening of the transcontinental telephone line extending from Boston and New York on the Atlantic seaboard to San Francisco on the Pacific, on January 25, 1915, has been followed by the extension of "extreme distance" transmission into all of the states of the Union, by applying these new improvements to the plant of the Bell System. It is now possible to talk from points in any one state to some points in every other state of the Union, while over a very large part of the territory covered by the Bell System it is possible for any subscriber to talk to any other subscriber regardless of distance.

The necessary changes in plant and equipment will be continued, wherever there is found to be potential commercial traffic, until telephone intercommunication is established over the whole system, in all of the states of the Union.

During the year very notable development in radio telephony, the transmission of speech without wires, was made.

On April 4 we were successful in transmitting speech from a radio station at Montauk Point on Long Island to Wilmington, Delaware.

On the 27th of August, with our apparatus, installed by permission of the Navy Department at the Arlington, Va., radio station, speech was successfully transmitted from Arlington, Va., to the Navy wireless station equipped with our apparatus at the Isthmus of Panama.

On September 29 we successfully transmitted speech by wire from the headquarters of the Company at 15 Dey Street, New York, to the radio station at Arlington, Va., and thence by radio or wireless telephony across the continent to the radio station at Mare Island Navy Yard, California.

On the next morning, at about one o'clock Washington time, we established wireless telephone communication between Arlington, Va., and Pearl Harbor in the Hawaiian Islands, where our engineer, together with United States naval officers, distinctly heard words spoken into the apparatus at Arlington.

On October 22, from the Arlington tower in Virginia, we successfully transmitted speech across the Atlantic Ocean to the Eiffel Tower at Paris, where our engineers, in company with French military officers, heard the words spoken at Arlington.

On the above day, when speech was being transmitted by our apparatus at Arlington to our engineer and the French military officers at the Eiffel Tower in Paris our engineering representative at Pearl Harbor, Hawaii, together with an officer of the United States Navy, heard the words spoken from Arlington to Paris.

While milestones mark progress made, steps make the progress. During the past year transcontinental telephony, radio transmission of the speaking vibrations, and the transference of the electrical speaking vibrations from space to wire or from wire to space, have been the "milestones" of progress of electrical transmission of speech. The improvements which have marked the progress of telephony appear to be revolutionary, when observed at intervals of years or by the onlooker, but to those in the march, or taken from month to month, they are only advance or evolution.

> Inventions of wondrous analytical subtlety have marked epochs in the progress of the telephone service, but in an art or industry or system made up of many interdependent operations and services; each new idea, no matter how controlling, must be adapted to what already exists to make it serviceable; any great or small invention is only useful when moulded into the mass so that its service becomes an undeterminate part of the service of the whole system. (American Telephone and Telegraph Company annual report, 1914.)

Study of needs and requirements, development of apparatus, methods and practices, demonstration of usefulness and practicability, application to the existing or potential demands, account for the very high state of efficiency and great usefulness attained by the Bell System. Every part of the equipment and plant construction and the operating methods have been raised to higher efficiency and usefulness. The radius of dependable commercial speaking transmission has been very greatly increased, and it is now certain beyond any question that as fast as developed or potential business and social requirements indicate commercial practicability, every section of the country can be put in speaking transmission with every other section, and every subscriber to the Bell System will be able to speak to every other subscriber regardless of distance.

Many scientists and inventors in this country and abroad had sought to accomplish long-distance transmission by the employment of special and powerful telephone transmitters and batteries and other auxiliary apparatus installed at subscribers' stations. By such methods it is true that the range of telephone transmission could have been extended, but only by immense expenditures of capital to cover the obsolescence and reconstruction of subscribers' stations, and the necessitated reconstruction of subscribers' lines and switchboards to overcome the increased interference or cross-talk, induced by the increased intensity of the currents and powerful instrumentalities used.

By the plan which has been worked out and adopted in the Bell System, the existing instruments and subscribers' lines and switchboards are made effective for the practical transmission of speech over any distance. At a cost only slightly exceeding that which would have been required in the ordinary routine of maintenance and reconstruction, many and important changes in equipment have been made which have increased the availability of the system. Without any radical reconstruction costing hundreds of millions of dollars, the effective talking range of every subscriber's telephone in the entire Bell System has been greatly extended and the service rendered, made more useful.

The method adopted can best be described as perfecting transmission by clearing and smoothing the way by lowering grades, straightening curves and removing obstructions, making a passage for the transmission of all telephones, rather than by using great power to overcome imperfect conditions.

These events mark an epoch in the history of telephony, and are but a part of the results from the work of our research and development staff.

The results are particularly noteworthy in the emphasis they place upon the tremendous advantage of the Bell System, of its central administration and its centralized control of operating policy and methods, and the work of its departments of operation, construction and manufacturing, and of research demonstration and development, in the field of economics, practice and science. They could not have been obtained without this central co-operative, co-ordinating control of the entire system. The independent efforts of segregated systems would have failed to produce satisfactory results; the duplication of work would have involved confusion and disturbance beyond endurance, and would have called for immense expenditure.

As illustrating the efficiency of the routine work, under the practice evolved by this mutual co-operation: it frequently becomes necessary to transfer some thousands of subscribers from one switchboard to another. One second before a certain hour all the thousands will be connected with one switchboard, and one set of operators, and at the stroke of the hour all will be connected with another switchboard manned by another set of operators, without any subscriber realizing what has happened.

In the development of the radio transmission of speech, after its possibility had been demonstrated at our own experimental stations, relations with the Navy and War Departments were established. The use of the wireless towers of those departments was placed at our service, and every possible courtesy, convenience and assistance in the conduct of the experiments was given to our staff by all connected with these departments. Besides these radio experiments, the departments were given demonstrations as to the availability of the Bell System and its wonderful potentiality in case of any emergency which would require quick and satisfactory intercommunication between the different departments of the Government and its scattered stations and officers throughout the whole country.

In case of any trouble requiring any such service, because of the central control of the Bell System, the Government could have at its immediate disposal a plant, equipment and operating staff which for completeness and efficiency would not be possible in any other way.

The announcement that wireless or radio telephony was an accomplished fact aroused much interest not only among those who had possible uses for it but those who desired to profit by it personally and financially, and many of our shareholders were apprehensive as to the possibility of its supplanting the wire system. To answer queries and allay apprehensions, a circular letter was given out explaining the scope and uses of the radio telephone, and also stating that whatever might be its future, that future would be as a part of the Bell System. The circular was full and explicit, and recent developments do not in any degree change it. One amplification which will possibly make it clearer, is:—At the transmitting station the power used depends entirely upon and increases rapidly with distance to be covered, and for very long distances is very considerable. The vibrations which are transmitted have great amplitude, volume and intensity. The intensity and volume of these vibrations as they pass outwards and onwards, diminish rapidly in every respect except as to definiteness, and at the distant receiving station they are very faint, but however faint, providing the static conditions permit and there are no artificial electrical disturbances, they can be picked up and transferred to a receiving instrument or to a land wire, to be transmitted further. If, however, the radio receiving and transmitting stations were at the same point, as they are on land lines, so long as transmission was going on, creating artificial electric disturbances of great intensity, these receiving or incoming radio vibrations would be entirely destroyed by the intensity and volume of the outgoing vibrations. Conversation such as is carried on over land lines is only possible by having the radio receiving station situated at a place free from artificial electrical disturbances, miles distant from, and connected by wire with, the transmitting station. In this way the radio incoming vibration could be picked up, transferred to wire, and thus transmitted to the party conversing at the transmitting station.

In answer to the query, will the wireless ever take the place of wire systems in the transmission of speech? So far as any present knowledge or any present indications govern, the answer may be an emphatic "No."

The importance of the subject, together with the lack of exact information and the great amount of misunderstanding of the subject is the excuse for the length of this explanation.

Everything in the way of invention or development must conform to natural laws and subordinate itself to natural forces. Success has only resulted where these laws have been respected; failure has always followed wherever they were not.

In this truism lie the possibilities and impossibilities of wireless transmission.

In the discussion of wireless telegraphy and telephony there may be assumed to be a universal, invisible, imponderable ether or wave conductor, enveloping the earth and extending indefinitely into space, through which the electrical signaling waves of the telephone or telegraph pass in all directions. In this ether there prevail "static" disturbances which are active at all times to a greater or less degree, but ordinarily perceptible to us only through lightning storms. These static phenomena, so far as can be judged, are of the same nature as the radio vibrations, but of greater intensity, amplitude and volume at times, and when in action seem to be universal so far as they affect the earth; they produce noises in the wireless receiving instruments, and for months at a time make conversation, and even transmission of signals impossible except for very short distances. There have been several methods proposed by scientists, the most promising of which may eliminate or nullify some of the interference, but will in no way extend the possibilities of the wireless.

In wireless or radio transmission there can be no secrecy, for although the wave lengths of the vibrations vary and a certain number of "selective" transmissions can be had, any receiver can be adjusted to any "selective." The number of simultaneous conversations which may take place by the wireless telephone is so limited that its utility is practically restricted to use between points or objects which cannot be communicated with in any other way, and then for dependable connection only over short distances. Even with these limitations, much difficult engineering work yet remains to be done before the wireless telephone can practically fulfill the limited functions we may reasonably expect of it.

CONTROL AND REGULATION.

The relations of this and the associated companies with the various boards of control and regulation and the national, state and municipal officials, have continued to be most satisfactory, and generally are on a basis of mutual confidence and co-operation. Many if not most of the questions which are sent to these bodies are settled by informal discussion and adjustment. Of the questions which have come to formal hearing and determination the decisions have been, with few exceptions, such as the company concerned could accept.

Control and regulation have done much to clear away the dangers of arbitrary action and unreasonable demands both on the side of the public and of "public services." The experience of the past, however, reveals dangers that menace its success.

There is danger in the possibility of "control and regulation" usurping the functions of management, and that the multitudinous questions of detail, trivial and negligible, for the most part simple questions of operation, will crowd out, and make it impossible to give full consideration to other and more important questions. Deliberate consideration is impossible in an overworked body.

Even the unsatisfactory practice of allotting questions to individual members for consideration, opinion and report, to be adopted as the opinion of the whole body, will not properly take care of the work. The inevitable tendency is that opinions and decisions are strongly influenced by, if not made by minor officials and the clerical force.

Many questions that come before these bodies are of such notoriety and are surrounded by so much sensational and mistaken assertion, misleading information and erroneous belief, that it is difficult for one not to be influenced in the formation of his opinion by a partial and often distorted presentation of the facts. In the settlement of such cases it is most important, therefore, that there should be abundant opportunity to get at the real facts, and ample time for deliberate consideration.

Other menaces are: the division of jurisdiction—too many independent boards having jurisdiction over the same questions—and the re-assumption of delegated jurisdiction by legislative bodies.

These dangers not only menace "control and regulation," but they also menace the work of the "public utilities." These multitudinous questions and multiplied bodies are the cause not only of great expense to the "utilities" which sooner or later the public pay, but they occupy the time of the operating officials, to the detriment of the real work of management. Many detailed reports are called for, and prepared at great expense, that cannot possibly be examined and digested, even if the whole force of the commissions gave all their time to them alone.

Commissions of control and regulation act under delegated authority from legislative bodies and were formed to protect the individual members of the public against corporate aggression or extortion and the "corporate members" of the public against public extortion and aggression.

That public is an interested party in the controversy and just as susceptible of wrong notions or wrong impulses as any individual.

These bodies have neither the power of the legislature nor the jurisdiction of the court, but are interposed between the two to give these questions of public relations the time and semi-judicial consideration which legislative bodies cannot give, and to lessen the number of cases in which appeal to the courts might be necessary. The sole cause of their existence was to control and regulate, under the legislative power delegated to them. Their operations should be strictly confined to control and regulation and never invade the province of management. *Management is inherent in the ownership and is inseparable from the responsibility of ownership.* The boundary line between management and regulation in many cases may be hard to define, but in a large majority of cases it can be determined with definiteness and precision.

This Company and its associated companies have been foremost to establish, and propose to continue their efforts to maintain good wages, good working conditions and relations of the most cordial kind for and with their employees—a fact which has been of the utmost importance to the efficiency of their service to the public. It is believed that discussion and suggestions looking to a fair and reasonable regulation of such relations between "public utilities" generally and their employees may fittingly come from a company which has had so satisfactory an experience with those engaged in its own service.

One of the most important of the functions of control and regulation is fixing the charge for service and prescribing the character of that service. The revenue of "public utilities" depends upon these charges. That revenue must be sufficient for all costs of operation. Costs include wages, maintenance, depreciation, reconstruction, and capital charges. Wages are about, and for purposes of discussion can be considered to be, 50 per cent. of costs of operation.

While each factor of cost is in fact as important as the other, and upon the whole expenditure depends the ability of the "public utilities" to perform their functions, wages are directly personal and to them attaches a superior importance over the others. Wages and conditions of employment should be such as will command the very best service at all times, and should be so adjusted that there could be no dispute in respect to them that could not be settled without disturbance of the service.

Wages in each class of employment should bear proper relation to the whole, and there should be no temptation, no opportunity or no power on the part of any class of employees to obtain an undue share.

The only excuse, which at one time was a good excuse, for using the power and force of combination to obtain increase of pay, recognition of rights or bettering of conditions, was when increased net profits, due to low wages, all went to the employers.

There is no longer such excuse. It has long been recognized that good work can only be obtained from, and waste and extravagance avoided by, interested and satisfied employees. Safeguards of many kinds have by statute been thrown around the employee; he is protected against danger and compensated for damage.

Where earnings are controlled, where surplus operating revenue after a reasonable return on capital goes back to the public, in reduction of charges, in construction of plant for which no capital securities are issued, in improvements in quality or quantity of service, wages also should be controlled.

Under existing practice, the question of wages is a matter of internal arrangement, or in extreme cases a matter of arbitrary power or of reference to the arbitration of temporary bodies.

When bodies of control and regulation consider costs and sources of revenue, they consider wages not primarily as to their sufficiency or equity, but in an inclusive way with other expenses to assure themselves that costs are not excessive. If these bodies were authorized to intervene in disputes where wages and working conditions were concerned, they would consider them concretely, both as to sufficiency and equity, and as a dominant factor in adjusting revenue.

To gain objects, or to enforce demands by combination and arbitrary action causing suspension partially or wholly of service, to the great inconvenience of the public, should not be possible. Such action on the part of the employees of a "public utility" is as unjustifiable and unpardonable as would be an arbitrary suspension of service by the utility. It is an exercise of arbitrary power, a disregard of the interests of the public, which should not be allowed in these days.

Restraint has been put upon the corporation side, which is effectual sofar as public service enterprises are concerned.

The causes which have made improved wages and labor conditions possible will be found in the application of the results of investigation, research and general study of all questions concerning management and operation; in the activity of invention and in the introduction of labor-saving machines, all of which have combined for greatly increased efficiency and improvement of methods and greatly increased production per unit of labor or effort. These causes have made it possible to greatly improve and cheapen production and service, and at the same time decrease the hours of labor, improve conditions and meet the continually recurring necessity and demands for better wages.

"Society has never allowed that which is necessary to its existence to be entirely controlled by private interests."

In the present state of public opinion, which has almost if not quite the force of common law, there is no reasonable dispute that should not be settled by common agreement, and when that fails the side which is disappointed and believes that it has a good case, should be willing to leave its case to a body having power of control and regulation and possessed of a knowledge of and jurisdiction over *all* the essential elements necessary for reaching an equitable decision.

The duty and obligation of an employee, to the employer, to the employment and to the dependent public; the attitude of the employee towards these duties and obligations; the effect that attitude may have upon the employment, on the service or on the public served, are vital public questions.

Whatever may be the facts with ordinary industrials, the position of the employees of public service enterprises, particularly those of transportation and intercommunication, is as distinct and separate from that of the employees of an ordinary industrial, as the position of any public service enterprise is distinct and separate from that of an ordinary industrial enterprise.

Public service employees, nominally the employees or servers of the corporation, are the employees or servers of the public. It is the "service," not of any particular employee but of every employee, that the public pays for. Service is rendered by the employee directly to the individual. The quality of the service rendered depends upon the interest of the employee in the service and the attitude toward the public. Employees who come in direct contact with the public can, in whole or in part, nullify or make objectionably inferior the efforts or service of the best organized and most comprehensive system or of the most efficient methods. No system can give good service, unless there be a direct recognition on the part of the employee that he has a duty and obligation to the public served; and following that duty and obligation, there must be some accountability of some kind to someone, if that obligation is evaded and the service is not rendered in the way it could and should be.

Good service requires expertness, which can only come from experience acquired through continuity in position; it requires efficient system and method, enforced and carried out; it requires not the servile, but the respectful and implicit subordination of the employee to the system, the method, and necessarily to the officials of the organization; it depends upon co-operation and the co-ordination of the efforts of all, employer and employee.

Continuity of service requires at all times a sufficient number of trained employees to take care of the demands of the service, and it should be beyond the power of any part of the organization to lightly cast aside even an implied obligation.

There are two "parties" in all public service—the organization with its plant and facilities for giving service, and the employees who give the service. The employee is by tradition regarded as a part of the organization and subject to its discipline and control. To a certain degree in some cases this has been nullified by combination. If this combination or the possibility of it is to be admitted, then so far as is necessary to preserve the right of the public to a continuous and dependable service, it should be under the same control and regulation by the same bodies that the corporation itself is under.

If the fundamental laws would permit it and public sentiment could be created to enforce it, it would be very desirable to work out some practical plan to accomplish this result.

"Public services" are of such a nature as to create a dependency upon some one system. It is impossible to suspend or interrupt these services even temporarily without putting the public to great inconvenience and to much suffering. To cripple or destroy such services or the means or facilities for rendering such service would be a calamity, something that nothing could justify. The obligation on the system to give a continuity of service is so strong that no excuse except *force majeure* can be recognized. No argument or accumulation of causes could possibly justify those, who in any way controlled the situation, in doing anything either wilfully or through negligence which would result in suspension or interference with service.

Conversely, if employees are to be controlled they should also be protected. What, then, is the method of protection? In the past, boards of arbitration have been a resort when matters have come to an *impasse*. Special and independent arbitration bodies are temporary, do not possess and cannot appreciate all the factors, and what is most important, have no responsibility for the effects of their decision on other interests.

To adjust properly any question involving expenditure for any part, every factor in connection with the whole business should be considered—the revenue, costs or charges, and everything that affects these. This can only properly be done by one and the same body, which must have jurisdiction over all factors involved—and therefore the only logical body to regulate and protect public service employees is that which regulates the "public utility" itself and has the responsibility to the public for this regulation.

On the other hand, it is both unreasonable and impossible to expect the employee to admit or appreciate this unless at the same time the individuals of the public recognize and observe their obligation or duty towards these employees. Courtesy on the part of the public is too often overlooked or forgotten, and too often the public fail to recognize in their bearing and action towards these employees any direct relation or any of those obligations which all employers should have towards those who serve them, and towards those who are, at least for the moment, in a subordinate position. Too often the attitude of those demanding service towards the employees giving them service, is in unreasonable and undignified contrast to that which they should give and which they do give to the employees of their immediate personal establishments.

CONCLUSION.

It is perfectly within bounds of conservatism to say that the American Telephone and Telegraph Company and associated companies were never, as a whole, in a more satisfactory, if as satisfactory a position financially, physically, and particularly from the point of mutual relationship with their employees and with the public.

The underlying policy of the Bell System was formulated at the beginning of the business, by those who had the perception and imagination to realize the potentialities, and more important, had faith in the possibilities and courage to undertake their development.

That policy was in effect, "one system" under common control, interdependent, intercommunicating, by which every one at every place could converse with every other one at every other place.

This policy has been consistently and persistently pursued. So far as the whole country is concerned, such a system may now be considered an accomplished fact. It has been tried and tested by experience. It has been proved good and has been accepted by the telephone-using public as the only one under which they can have satisfactory service. No matter what the technical objections or negligible differences of opinion or theory, it has been, if not formally approved, substantially accepted by all national, state and municipal authorities and boards of control and regulation, and has been adjudicated upon by courts of high jurisdiction, throughout the country, as the only policy or plan by which can be given a service such as the commercial and social requirements now demand.

There have been many and grave dangers confronting the American Telephone and Telegraph Company and associated companies. The most difficult to control was that arising from the intimate, exacting and delicate relations with the public, inherent in any "public necessity," but peculiar to the telephone service because of the confidential personal relations with its users. The menace of this danger is happily averted in a great degree. The employees of the service who come in close relation with the public recognize that courtesy and patience make their task pleasanter and their relations more agreeable, and the public are fast responding to this silent appeal.

The greatest danger now safely past and never again possible, was in the promoting speculative boom, which existed in the abundant years which closed the last century.

It was only the policy of one universal interdependent system, persistently followed, and the advantage of the service due to it, that enabled the Bell to maintain itself.

The desire for cheaper and greater service, the fear of monopoly, allegations of enormous profit were used by promoters, some wilfully and intentionally misleading, some mistaken, who appealed to the selfishness, covetousness and prejudices of the investor and the public. There was a wild investment in inflated securities sold to the unthinking public on the promise of big profits and dividends. Failure in performance brought a sad experience to these mistaken promoters and investors. The fallacy of cheaper service than that given by the Bell System, and of superior service from any different apparatus or operating methods, was demonstrated beyond question.

The necessity of the existing opposition companies, now growing old, to care for depreciation and obsolescence and to maintain a local service at least equal to the Bell service, even to hold their existing position, makes existing duplicating enterprises negligible so far as they affect the present or may affect the future of our business. Under reasonable restrictions, necessary to avoid discrimination against the Bell subscribers, these duplicating companies are now given the use of the toll and long-distance lines of the Bell System to connect their subscribers with the subscribers of all Bell exchanges beyond local and circumadjacent ones. (See correspondence with the Department of Justice, in this Company's annual report for 1913.)

Our policy toward them is and will be unchanged. If in any case it becomes the desire of the telephone public that we should, and the public and all authorities acquiesce and it can legally be done, we stand ready to make any reasonable arrangement which will protect the service and the public, and which will not discriminate against the subscribers of the Bell System.

The financial experience from past efforts; the general sentiment of the public that one interdependent universal system under control and regulation, is sufficient, and more than one a nuisance; the ability of the Bell to furnish any type or style of apparatus, establishes the absolute futility, even if it were physically or financially possible, of any attempt to duplicate the Bell System. Less than a complete duplication would be useless; a complete duplication would be a nuisance.

There have been serious apprehensions that rate-adjusting bodies might bear hard on rates and reduce them to an unprofitable point. There have been disputes over what were reasonable rates, but not a single instance where there was a tendency or inclination to make any but fair ones.

In rate making, whether legislative or competitive, there is a general tendency towards uniform rates for all like public services. Uniform rates are necessarily based on average costs over the territory to which the rates apply. These costs may be either determined, accepted or assumed.

No two systems or independent enterprises of any nature, and particularly of "public service," are like conditioned as to construction, operating, density of traffic and other factors which control cost of operating; consequently there are in large territories, great variations in the causes which affect the numerous costs from which the average costs are deduced.

Extensive combinations or systems favorably situated or well balanced combinations of units even of wide variation, prosper under uniform rates and will even show good results at "unit" rates no greater than the unit cost of operating on other combinations or systems unfavorably situated or badly balanced.

Extensive systems badly balanced or independent enterprises unfavorably situated, may be fairly prosperous under uniform rates during periods of great commercial activity, but will be barely self-sustaining in normal times and are in the hands of a receiver in subnormal times.

This is most forcibly demonstrated in transportation, where there are such extremes in the unit cost of operation on differently situated or conditioned systems and independent enterprises.

The Bell System is a well balanced, comprehensive system of intercommunication, in which each exchange district is a center of an intradependent system, each of which is superimposed in part over the other, and each of which must be considered in rate making as a whole.

It is recognized that the value of the telephone service is dependent upon the available service of the entire intradependent system to be reached from any exchange center; that there is and must be great variation in the revenue-producing ability of each separate exchange district and connecting line making up the system; that in rate making all these elements creating this value of service must be recognized and taken into consideration.

To the extent that these conditions are within the jurisdiction of any rate-making body, they are now generally taken into consideration, and may be considered to be well established principles.

There is no public service which is in a better position as to its future revenue than the Bell System, and its strength lies in the fact that it is a well balanced, intradependent, aggregated system made up of many units, interdependent as to service and policy and operation, but intradependent as to common interest and support.

The underlying basis of rate making is the "value of the plant." On this the Bell System has nothing to fear. The actual value of its plant—the only value that can be used for rate making—is many millions in excess of the book value. The book value is many millions in excess of the par of all outstanding capital obligations.

Its capital obligations are conservative. All discounts on bond issues have been charged off. There has been paid in on account of capital stock of the Company over $31,000,000 in excess of the par of that stock, or for every share of outstanding stock, par $100, $108 in cash has been paid into the treasury.

Our situation is due entirely to the conservatism of the past; and to the making of ample charges against current earnings for depreciation and obsolescence as should be and must be done with any regard for the future. This is now authorized and directed to be done by all bodies of "control and regulation."

The recognition of these principles and factors as controlling in rate making, guarantees and protects the American Telephone and Telegraph Company and associated companies in reasonable rates, which will enable them to maintain good service by having a satisfied, well paid and interested operating staff; will enable them to maintain and extend their system, increase its universality to the greatest possibility and to place its service within reach of the greatest possible number, although in so doing there will be lines and exchange systems constructed and maintained in advance of the development or even the potentiality of a business that would support these sections independently.

> "Those advocating government ownership say 'that private claims or rights of owners (*i.e.* shareholders) of the existing systems *will not be allowed to stand in the way.'* It is neither contention nor resistance for the thousands of owners to claim 'just compensation' based upon a fair valuation; the guaranteed rights of all give them that protection. Just compensation means that it must be 'just' and represent full value of the property; this contention is very clearly upheld in . . . a United States Supreme Court decision in a case where it was claimed that just value meant full value of the property, including franchises." (American Telephone and Telegraph Company annual report 1913.)

So long as the policies which now control the companies are followed, so long as there are fair rates and good service, there is little danger of public ownership.

The public are recognizing the fact that in the rates charged for telephone service in the United States there is no exaction, and are beginning to believe that these charges are the cheapest in the world, and the service the best and the total cost to the public less than it would be under government ownership.

The amount now paid in dividends and charges on the outstanding capital obligations is no greater than the government would have to pay for the purchase money. In addition to its dividends the Company is paying over $13,000,000 in taxes which would be lost to the community under government ownership.

The report of 1911 contained the paragraphs:—

> "We believe that we are working this problem out on the broad lines of the greatest benefit to the public, and that

> this is evidenced by the fact that our standards and lines of organization and operation are the standards the world over.
>
> "As a corollary to this—we recognize a 'responsibility' and 'accountability' to the public on our part, which is something different from and something more than the obligation of other public service companies not so closely interwoven with the daily life of the whole community."

In this policy, in this belief, in all our acts there has been a consistency of purpose, an absolute frankness of statement, and so far as confidence can be had by any corporation which is dealing with a vital necessity to the public, we believe we have public confidence.

With a reasonably satisfied public; with a reasonably liberal public; with a reasonably inclined federal, state and municipal control and regulation; without any onerous or unreasonable demands in sight or probable; with a normal business requiring only normal amounts of future capital; with a system sufficiently in advance of existing conditions to meet all possible demands or emergencies; with a business of such a nature that it makes the most economical "servant" for social or commercial intercourse, the first to be employed, the last to be discharged; with an operating staff from office boy to senior executive, from the newest to the oldest, who look upon the system as their system, who are jealous of its reputation and zealous in support of it; who have a keen interest in its improvement and development; who believe that their success and the Company's success are inseparable, who are never satisfied except with something better and who recognize their obligations to the public—with all these, we should look forward with confidence to the future.

For the Directors,
THEODORE N. VAIL,
President.

	Dec. 31, 1895.	Dec. 31, 1900.	Dec. 31, 1905.	Dec. 31, 1910.	Dec. 31, 1914.	Dec. 31, 1915.	Increase
Total Miles of Pole Lines	78,203	131,538	213,233	282,877	326,168	330,602	4,434
Miles of Underground Conduit (length of single duct)				30,165	42,761	44,510	1,749
Miles of Underground Wire	184,515	705,269	2,345,742	5,992,303	9,760,165	10,536,837	776,672
Miles of Submarine Wire	2,028	4,203	9,373	24,636	35,809	36,314	505
Miles of Aerial Wire	488,872	1,252,329	3,424,803	5,625,273	7,679,620	7,932,394	252,774
Total Miles of Wire	675,415	1,961,801	5,779,918	11,642,212	17,475,594	18,505,545	1,029,951
Comprising Toll Wire	215,687	607,599	1,265,236	1,963,994	2,437,697	2,453,483	15,786
Comprising Exchange Wire	459,728	1,354,202	4,514,682	9,678,218	15,037,897	16,052,062	1,014,165
Total	675,415	1,961,801	5,779,918	11,642,212	17,475,594	18,505,545	1,029,951
Miles of Phantom Circuit				115,506	189,562	196,841	7,279
Total Exchange Circuits	237,837	508,262	1,135,449	2,082,960	2,972,901	3,174,271	201,370
Number of Central Offices	1,613	2,775	4,532	4,933	5,289	5,300	11
Number of Bell Stations	281,695	800,880	2,241,367	4,030,668	5,763,008	6,155,900	392,892
Number of Bell Connected Stations*	27,807	55,031	287,348	1,852,051	2,885,985	2,995,321	109,336
Total Stations	309,502	855,911	2,528,715	5,882,719	8,648,993	9,151,221	502,228
Number of Employees	14,517	37,067	89,661	120,311	142,527	156,294	13,767
Number of Connecting Companies, Lines and Systems				17,845	27,210	28,306	1,096
Exchange Connections Daily	2,351,420	5,668,986	13,543,468	21,681,471	27,049,225	25,183,799	§1,865,426
Toll Connections Daily	51,123	148,528	368,083	602,539	798,949	819,030	20,081

*Includes Private Line Stations.

§Decrease—See explanation under Traffic, page 5.

BELL TELEPHONE SYSTEM IN THE UNITED STATES.

ALL DUPLICATIONS BETWEEN COMPANIES EXCLUDED.

COMBINED BALANCE SHEETS AT FIVE YEAR INTERVALS, 1885-1915.

	Dec. 31, 1885.	Dec. 31, 1890.	Dec. 31, 1895.	Dec. 31, 1900.	Dec. 31, 1905.	Dec. 31, 1910.	Dec. 31, 1915.
ASSETS:							
Contracts and Licenses.	$16,732,100	$18,925,700	$ 20,005,300	$ 14,794,300	$ 13,313,400	$ 2,943,381	$............
Telephone Plant......	38,618,600	58,512,400	87,858,500	180,699,800	368,065,300	610,999,964	880,068,520
Supplies, Tools, etc...	348,500	1,021,800	1,810,000	6,464,400	11,069,500	20,987,551	15,951,582
Receivables..........	1,450,900	1,761,600	3,746,600	13,644,000	26,220,800	26,077,802	43,518,625
Cash...............	1,792,600	1,183,300	2,484,100	3,223,000	11,005,900	27,548,933	45,716,330
Stocks and Bonds.....	1,138,800	2,697,400	4,480,500	11,400,400	23,041,200	64,766,089	72,652,646
Total.............	$60,081,500	$84,102,200	$120,385,000	$230,225,900	$452,716,100	$753,323,720	$ 1,057,907,703
LIABILITIES:							
Capital Stock........	$38,229,200	$43,792,800	$ 57,462,700	$130,006,900	$238,531,100	$344,645,430	$ 440,711,200
Funded Debts.......	367,400	6,473,100	10,074,100	44,137,900	93,079,500	224,791,696	353,236,464
Bills Payable........	} 2,618,900	1,323,000	2,000,000	7,000,000	35,000,000	42,566,943	2,404,920
Accounts Payable.....		3,301,100	6,138,000	13,583,300	22,407,500	21,721,125	29,039,127
Total Outstanding Obligations.........	$41,215,500	$54,890,000	$ 75,674,800	$194,728,100	$389,018,100	$633,725,194	$ 825,391,711
Employees' Benefit Fund.........	....	....	....	....	....	....	9,114,329
Surplus and Reserves..	18,866,000	29,212,200	44,710,200	35,497,800	63,698,000	119,598,526	223,401,663
Total.............	$60,081,500	$84,102,200	$120,385,000	$230,225,900	$452,716,100	$753,323,720	$ 1,057,907,703

BELL TELEPHONE SYSTEM IN THE UNITED STATES.

ALL DUPLICATIONS BETWEEN COMPANIES EXCLUDED.

COMPARATIVE REVENUE AT FIVE YEAR INTERVALS, 1885-1915.

	Year 1885.	Year 1890.	Year 1895.	Year 1900.	Year 1905.	Year 1910.	Year 1915.
Gross Revenue..........	$10,033,600	$16,212,100	$ 24,197,200	$ 46,385,600	$ 97,500,100	$165,612,881	$239,909,649
Expenses............	5,124,300	9,067,600	15,488,400	30,632,400	66,189,400	114,618,473	173,727,892
Net Revenue..........	$ 4,909,300	$ 7,144,500	$ 8,708,800	$ 15,753,200	$ 31,310,700	$ 50,994,408	$ 66,181,757
Interest............	27,700	278,700	655,500	2,389,600	5,836,300	11,556,864	18,095,643
Net Income...........	$ 4,881,600	$ 6,865,800	$ 8,053,300	$ 13,363,600	$ 25,474,400	$ 39,437,544	$ 48,086,114
Dividends...........	3,107,200	4,101,300	5,066,900	7,893,500	15,817,500	25,160,786	32,897,065
Balance for Surplus.....	$ 1,774,400	$ 2,764,500	$ 2,986,400	$ 5,470,100	$ 9,656,900	$ 14,276,758	$ 15,189,049

American Telephone and Telegraph Company.

Balance Sheet, December 31, 1915.

ASSETS.

Stocks of Associated Companies	$439,376,366.67	
Bonds and Notes of Associated Companies	59,257,084.00	$498,633,450.67
Telephones	$15,299,000.10	
Real Estate	508,400.42	
Long-Distance Telephone Plant	50,113,061.36	65,920,461.88
Trustees—Employees' Stock Purchase Plan		8,795,967.59
Miscellaneous Investments	$2,705,000.00	
Special Demand Notes	6,575,000.00	
Current Accounts Receivable	10,463,558.38	19,743,558.38
Cash and Deposits		29,870,555.18
		$622,963,993.70

LIABILITIES.

Capital Stock		$380,477,100.00
4% Collateral Trust Bonds, 1929	$78,000,000.00	
4% Convertible Bonds, 1936	4,129,000.00	
4½% Convertible Bonds, 1933	28,063,700.00	
5% Western T. & T. Co. Bonds, 1932	9,990,000.00	
Notes to Associated Companies	4,172,350.00	124,355,050.00
Dividend Payable January 15, 1916	$7,609,542.00	
Interest and Taxes Accrued, but not due	2,672,974.80	
Current Accounts Payable	2,572,079.06	12,854,595.86
Employees' Benefit Fund		2,015,328.38
Reserves for Depreciation and Contingencies		27,130,971.44
Surplus (including Premiums on Capital Stock)		76,130,948.02
		$622,963,993.70

Note: $33,962,236.00 5% Coupon Notes of Associated Companies endorsed but not owned by this Company are not included above in either Assets or Liabilities.

CHARLES G. DuBOIS, *Comptroller*

American Telephone and Telegraph Company.

Comparative Statement of Earnings and Expenses

For the years 1914 and 1915.

EARNINGS:	1914.	1915.
Dividends	$25,638,205.03	$25,662,616.00
Interest and other Revenue from Associated Companies	13,959,943.61	13,407,976.73
Telephone Traffic (net)	5,530,454.44	6,544,462.41
Other Sources	1,067,995.77	1,194,299.33
Total	$46,196,598.85	$46,809,354.47
EXPENSES	5,638,621.56	5,691,867.19
NET EARNINGS	$40,557,977.29	$41,117,487.28
Deduct Interest	8,223,163.23	6,498,849.72
Balance	$32,334,814.06	$34,618,637.56
Deduct Dividends	27,572,674.72	29,100,591.03
Balance	$4,762,139.34	$5,518,046.53
Carried to Reserves	$2,500,000.00	$2,500,000.00
Carried to Surplus	2,262,139.34	3,018,046.53
Total	$4,762,139.34	$5,518,046.53

CHARLES G. DUBOIS, *Comptroller.*

Annual Earnings and Dividends.

Year.	Net Revenue.	Dividends Paid.	Added to Reserves.	Added to Surplus.
1900	$5,486,058	$4,078,601	$937,258	$470,199
1901	7,398,286	5,050,024	1,377,651	970,611
1902	7,835,272	6,584,404	522,247	728,621
1903	10,564,665	8,619,151	728,140	1,217,374
1904	11,275,702	9,799,118	586,149	890,435
1905	13,034,038	9,866,355	1,743,295	1,424,388
1906	12,970,937	10,195,233	1,773,737	1,001,967
1907	16,269,388	10,943,644	3,500,000	1,825,744
1908	18,121,707	12,459,156	3,000,000	2,662,551
1909	23,095,389	17,036,276	3,000,000	3,059,113
1910	26,855,893	20,776,822	3,000,000	3,079,071
1911	27,733,265	22,169,450	2,800,000	2,763,815
1912	32,062,945	26,015,588	2,800,000	3,247,357
1913	32,920,090	27,454,037	2,500,000	2,966,053
1914	32,334,814	27,572,675	2,500,000	2,262,139
1915	34,618,638	29,100,591	2,500,000	3,018,047

CHARLES G. DUBOIS, *Comptroller.*

ARTHUR W. TEELE, C.P.A.
JOHN WHITMORE
HAMILTON S. CORWIN, C.P.A.
HAROLD F. LEEMING, C.A.

F. R. C. STEELE, C.A.
BOSTON.

CABLE ADDRESS
"DIGNUS"

Patterson, Teele and Dennis
Accountants and Auditors
New York and Boston

30 BROAD STREET, NEW YORK, February 25, 1916.

MR. WILLIAM J. LADD,
MR. CHARLES C. JACKSON,
MR. LOUIS CURTIS,
STOCKHOLDERS' COMMITTEE,
AMERICAN TELEPHONE & TELEGRAPH COMPANY.

SIRS:

As auditors appointed by you, we beg to report as follows:

We have audited the accounts of the American Telephone & Telegraph Company, and of the thirty-two Subsidiary State Companies owning Long Distance Toll Lines of the Bell System, for the year 1915. These accounts are consolidated in the Balance Sheet herein referred to and published herewith.

We have not audited the books of the Associated Companies whose capital stock is carried in the accompanying Balance Sheet at $439,376,366.67.

We have, however, examined the reports of these Associated Companies for the year and have carefully considered the value at which the securities are carried on the books of the American Telephone & Telegraph Company.

We certify that the accompanying Balance Sheet is in accordance with the books, and fairly sets forth the financial condition of the American Telephone & Telegraph Company at December 31, 1915; and that the result of the year's business is fairly stated by the amount carried to Surplus, as shown by the accompanying Statement of Earnings and Expenses, and the amount of Premiums on Capital Stock carried directly to Surplus.

PATTERSON, TEELE & DENNIS,
Accountants and Auditors.

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